for net addition of claims) are hereby authorized to be charged to Deposit Account No. 20-0778.

AMENDMENTS TO CLAIMS

Please amend the claims as follows. The following is a copy of Applicants' claims that identifies language being added with underlining ("___") and language being deleted with strikethrough ("—"), as applicable:

1.-17. (Canceled)

18. (Currently Amended) method for fabricating a microstructure, comprising:

providing a substrate having a sacrificial polymer layer disposed thereon;

disposing a framing material onto at least a portion of the sacrificial polymer layer;

disposing an overcoat layer onto the framing material, wherein the overcoat layer is selected from polynorbornenes, epoxides, polyarylenes ethers, parylenes, and combinations thereof, and wherein the framing material substantially separates the sacrificial polymer layer from the overcoat layer; and

removing the sacrificial polymer via thermal decomposition.

19. (Previously Amended) The method of claim 18, wherein the step of removing the sacrificial polymer comprises removing the sacrificial layer to define an air-region within the overcoat layer, the framing material engaging at least a portion of the air-region on an inside surface of the framing material and engaging the overcoat layer on an outside surface of the framing material.

20. (Canceled)

21. (Original) The method of claim 18, wherein the framing material is selected from SiO_2, Si_3N_4, SiO_xN_y (where x is from 0.01 to 2 and y is from 0.01 to 1.33), and Al_2O.

22. (Original) The method of claim 18, wherein the sacrificial layer polymer is selected from polyimides, polynorbornenes, epoxides, polyarylenes ethers, polyarylenes, inorganic glasses, and combinations thereof.

23. (Currently Amended) A method for fabricating a microstructure, comprising:

providing a structure having

a substrate,

an overcoat layer, wherein the overcoat layer is selected from polynorbornenes, epoxides, polyarylenes ethers, parylenes, and combinations thereof,

a sacrificial polymer layer in an area within the overcoat layer, and

a framing material covering all portions of the sacrificial polymer layer that would otherwise contact the overcoat layer; and

removing the sacrificial polymer layer via thermal decomposition to form an air-region within the area defined by the sacrificial material.

24. (Original) The method of claim 23, wherein the sacrificial layer polymer is solvent-incompatible with the overcoat.

25. (Previously Presented) The method of claim 23, wherein the framing material forms a barrier between the sacrificial polymer layer and the overcoat layer until the overcoat cures, and

wherein the framing material maintains the dimensional integrity of the air-region.

26. (Previously Presented) The method of claim 23, wherein the sacrificial layer polymer is selected from polynorbornenes, epoxides, polyarylenes ethers, polyarylenes, inorganic glasses, and combinations thereof.

27. (Canceled)

28. (Previously Presented) The method of claim 18, wherein the step of removing the sacrificial polymer comprises heating at least a portion of the microstructure to decomposition temperature of the sacrificial polymer.

29. (Previously Presented) The method of claim 28, wherein the step of removing the sacrificial polymer comprises, after heating at least the portion of the microstructure to the decomposition temperature of the sacrificial polymer, maintaining the decomposition temperature for about 1-2 hours.

30. (Previously Presented) The method of claim 18, further comprising:

allowing thermal decomposition products to diffuse through the overcoat layer leaving a virtually residue-free hollow structure.

31. (Previously Presented) The method of claim 18, wherein the step of removing the sacrificial polymer via thermal decomposition comprises decomposing the sacrificial polymer layer at a temperature of about 50 to 425 °C.